

"Oh. You know. To check out, uh, to find out what's going on in London. How is it there?"

"It's five o'clock in the morning. It's raining now."

"Oh. Who are you?"

The London passerby turns out to be an R.A.F. enlistee on his way back to the base in Lincolnshire, with a terrible hangover after a thirty-six-hour pass. He and Fraser talk about the rain. They agree that it's nicer when it's not raining. They say good-bye and Fraser hangs up. His dime returns with a nice clink.

"Isn't that far out," he says grinning at me. "London, like that."

Fraser squeezes the little blue box affectionately in his palm. "I told ya this thing is for real. Listen, if you don't mind I'm gonna try this girl I know in Paris. I usually give her a call around this time. It freaks her out. This time I'll use the ----- (a different rent-a-car company) 800 number and we'll go by overseas cable, 133; 33 is the country code for France, the 1 sends you by cable. Okay, here we go.... Oh damn. Busy. Who could she be talking to at this time?"

A state police car cruises slowly by the motel. The car does not stop, but Fraser gets nervous. We hop back into his car and drive ten miles in the opposite direction until we reach a Texaco station locked up for the night. We pull up to a phone booth by the tire pump. Fraser dashes inside and tries the Paris number. It is busy again.

"I don't understand who she could be talking to. The circuits may be busy. It's too bad I haven't learned how to tap into lines overseas with this thing yet."

Fraser begins to phreak around, as the phone phreaks say. He dials a leading nationwide charge card's 800 number and punches out the tones that bring him the time recording in Sydney, Australia. He beeps up the weather recording in Rome, in Italian of course. He calls a friend in Boston and talks about a certain over-the-counter stock they are into heavily. He finds the Paris number busy again. He calls up "Dial a Disc" in London, and we listen to Double Barrel by David and Ansil Collins, the number-one hit of the week in London. He calls up a dealer of another sort and talks in code. He calls up Joe Ingressia, the original blind phone-phreak genius, and pays his respects. There are other calls. Finally Fraser gets through to his young lady in Paris.

They both agree the circuits must have been busy, and criticize the Paris telephone system. At two-thirty in the morning Fraser hangs up, pockets his dime, and drives off, steering with one hand, holding what he calls his "lovely little blue box" in the other.

You Can Call Long Distance For Less Than You Think

"You see, a few years ago the phone company made one big mistake," Gilbertson explains two days later in his apartment. "They were careless enough to let some technical journal publish the actual frequencies used to create all their multi-frequency tones. Just a theoretical article some Bell Telephone Laboratories engineer was doing about switching theory, and he listed the tones in passing. At ----- (a well-known technical school) I had been fooling around with phones for several years before I came across a copy of the journal in the engineering library. I ran back to the lab and it took maybe twelve hours from the time I saw that article to put together the first working blue box. It was bigger and clumsier than this little baby, but it worked."

It's all there on public record in that technical journal written mainly by Bell Lab people for other telephone engineers. Or at least it was public. "Just try and get a copy of that issue at some engineering-school library now.

Bell has had them all red-tagged and withdrawn from circulation," Gilbertson tells me.

"But it's too late. It's all public now. And once they became public the technology needed to create your own beeper device is within the range of any twelve-year-old kid, any twelve-year-old blind kid as a matter of fact. And he can do it in less than the twelve hours it took us. Blind kids do it all the time. They can't build anything as precise and compact as my beeper box, but theirs can do anything mine can do."

"How?"

"Okay. About twenty years ago AT&T. made a multi-billion-dollar decision to operate its entire long-distance switching system on twelve electronically generated combinations of twelve master tones. Those are the tones you sometimes hear in the background after you've dialed a long-distance number. They decided to use some very simple tones -- the tone for each number is just two fixed single-frequency tones played simultaneously to create a certain beat frequency. Like 1300 cycles per second and 900 cycles per second played together give you the tone for digit 5. Now, what some of these phone phreaks have done is get themselves access to an electric organ. Any cheap family home-entertainment organ. Since the frequencies are public knowledge now -- one blind phone phreak has even had them recorded in one of the talking books for the blind -- they just have to find the musical notes on the organ which correspond to the phone tones. Then they tape them. For instance, to get Ma Bell's tone for the number 1, you press down organ keys F-5 and A-5 (900 and 700 cycles per second) at the same time. To produce the tone for 2 it's F-5 and C-6 (1100 and 700 cps). The phone phreaks circulate the whole list of notes so there's no trial and error anymore."